What is claimed is:

1   1.   A method comprising:
2   multicasting data to at least one line card configured to
3   attach to a router; and
4   storing state information associated with the data as a
5   default state at each line card the data was multicast to.

1   2.   The method of claim 1 wherein the state information
2   includes a source parameter indicating a source of the data.

1   3.   The method of claim 1 wherein the state information
2   includes a group parameter indicating at least one destination
3   of the data.

1   4.   The method of claim 1 further comprising performing
2   a reverse path forwarding check on the data.

1   5.   The method of claim 4 wherein the performing is done
2   using a multicast border gateway protocol.

1   6.   The method of claim 1 further comprising verifying
2   that the data was received at the proper line card.

1   7.   The method of claim 6 wherein the verifying is done
2   using a multicast border gateway protocol.

1   8.   An article comprising a machine-readable medium
2   which stores machine-executable instructions, the instructions
3   causing a machine to:
4   multicast data to at least one line card configured to
5   attach to a router; and
6   store state information associated with the data as a
7   default state at each line card the data was multicast to.

1   9.   The article of claim 8 wherein the state information

2   includes a source parameter indicating a source of the data.

1   10.   The article of claim 8 wherein the state information

2   includes a group parameter indicating at least one destination

3   of the data.

1   11.   The article of claim 8 further causing a machine to

2   perform a reverse path forwarding check on the data.

1   12.   The article of claim 11 wherein the performing is

2   done using a multicast border gateway protocol.

1   13.   The article of claim 8 further causing a machine to

2   verify that the data was received at the proper line card.

1   14.   The article of claim 13 wherein the verifying is

2   done using a multicast border gateway protocol.

1   15.   A router comprising:

2   a line card configured to store state information for

3   multicast data as a default state; and

4   a central controller unit configured to attach to the

5   line card and configured to receive a packet included in the

6   multicast data and to determine from the packet where to route

7   the multicast data.

1   16.   The router of claim 15 further comprising a fabric

2   configured to attach to the line card and to the central

3   controller and configured to direct data.

1   17.   The router of claim 15 further comprising a

2   plurality of line cards, each additional line card configured

3   similar to the line card.

1   18.   The router of claim 15 wherein the state information

2   includes a source parameter indicating a source of the

3   multicast data.

1   19.   The router of claim 15 wherein the state information

2   includes a group parameter indicating at least one destination

3   of the multicast data.

1   20.   A method comprising:

2   receiving multicast data including unknown state

3   information;

4   storing the multicast data with default state

5   information;

6   performing a reverse path forwarding check on the

7   multicast data;

8   verifying that the multicast data was received at a

9   proper interface;

10   determining a multicast group associated with the

11   multicast data; and

12   routing the multicast data to the multicast group.

1   21.   The method of claim 20 wherein the multicast data is

2   stored at a data path of a line card.

1   22.   The method of claim 20 further comprising

2   multicasting the multicast data to all available interfaces

3   after storing the multicast data.

1   23.   The method of claim 20 wherein the state information

2   includes a source parameter indicating a source of the

3   multicast data.

1 24. The method of claim 20 wherein the state information

2 includes a group parameter indicating at least one destination

3 of the multicast data.

1 25. The method of claim 20 wherein the multicast data is

2 received at a line card.

1 26. The method of claim 20 wherein a data path

2 associated with a router and configured to process multicast

3 data executes the performing and the verifying.

1 27. The method of claim 26 wherein the data path uses a

2 multicast border gateway protocol in executing the performing

3 and the verifying.

1 28. The method of claim 20 wherein a processor included

2 in a router and configured to process multicast data executes

3 the determining.

1 29. The method of claim 20 further comprising trimming

2 routes to paths not associated with the multicast group.

1 30. The method of claim 20 further comprising receiving

2 multicast data including known state information.

1 31. The method of claim 30 further comprising verifying

2 that the multicast data including known state information was

3 received at a proper interface.

1 32. The method of claim 31 further comprising

2 multicasting the multicast data including known state

3 information according to the known state information if the

4 multicast data including known state information is verified.

1 33. The method of claim 31 further comprising dropping

2 the multicast data including known state information if the

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3   multicast data including known state information is not

4   verified.

1   34.   A method comprising:

2   installing a default state associated with multicast data

3   in a data path of a line card;

4   broadcasting the multicast data from the line card to all

5   other line cards that the line card is configured to

6   communicate with;

7   sending the multicast data from the data path to a

8   control path of the line card;

9   at the control path, computing a route for the multicast

10   data;

11   sending the computed route from the control path to the

12   data path; and

13   designating the line cards not included in the computed

14   route as not to be broadcast multicast data received at the

15   data path subsequent to the multicast data and having the same

16   state information as the multicast data.

1   35.   The method of claim 34 further comprising performing

2   at the data path a reverse path forwarding check on the

3   multicast data using a multicast gateway border protocol.

1   36.   The method of claim 34 further comprising prior to

2   the installing, checking state information associated with the

3   multicast data with a multicast border gateway protocol to

4   verify that the line card received the multicast data from a

5   proper source.